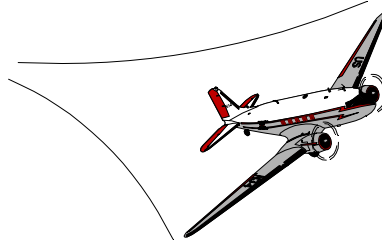


SPECIAL AIRWORTHINESS INFORMATION BULLETIN

Aircraft Certification Service
Washington, DC



U.S. Department
of Transportation

**Federal Aviation
Administration**

No. NE-03-28
March 10, 2003

We post SAIBs on the internet at www.airweb.faa.gov

This is information only. Recommendations are not mandatory.

Introduction

The Special Airworthiness Information Bulletin (SAIB) advises you, owners and operators of **Bombardier CL 600 Challenger CL-600-1A11 (CL-600), CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A) & (CL-601-3R)& (CL-604)** as well as the **RJ 100 (CL 600-2B19)** series aircraft that Transport Canada (TC) has recently received a Service Difficulty Report regarding a bearing failure in the Aileron Quadrant/Feel Unit, P/N 600-91178-7, on a CL 600 2A12 (601) Challenger aircraft. TC has released Service Difficulty Alert No. AL-2003-01 dated January 9, 2003, to perform an operational check on the aileron system.

Background

Maintenance personnel performed a 600-hour inspection and after completing operational tests on the aileron system, they exercised the ailerons bleeding off the hydraulic system pressure. When the pressure was released, they heard a loud bang while moving the controls. While troubleshooting and moving the aileron controls again, they heard the bang again. They determined the source of the noise was the wheel well quadrant. They removed and disassembled the quadrant. They found quadrant bearing, P/N MS 27646-39 (Item 59, figure 1 of this SAIB, Re: IPC 27-12-00, Page 3 Figure 1(D)) was dry of grease and the balls had worn a deep groove into the inner race.

It is important to note that the operator did not experience any symptoms that would have lead to the discovery of this degradation prior to its failure; example: stiff or ratcheting control wheel. This quadrant has a common part number throughout the Challenger and Regional Jet 100 fleet.

Recommendations

The FAA strongly recommends that you carry out an operational check on the aileron system similar to the scenario above to ensure the presence of sufficient lubrication in the subject bearing. If left undetected, aileron control operation could be compromised. You should report any defects or further occurrences to the New York Aircraft Certification Office (NYACO).

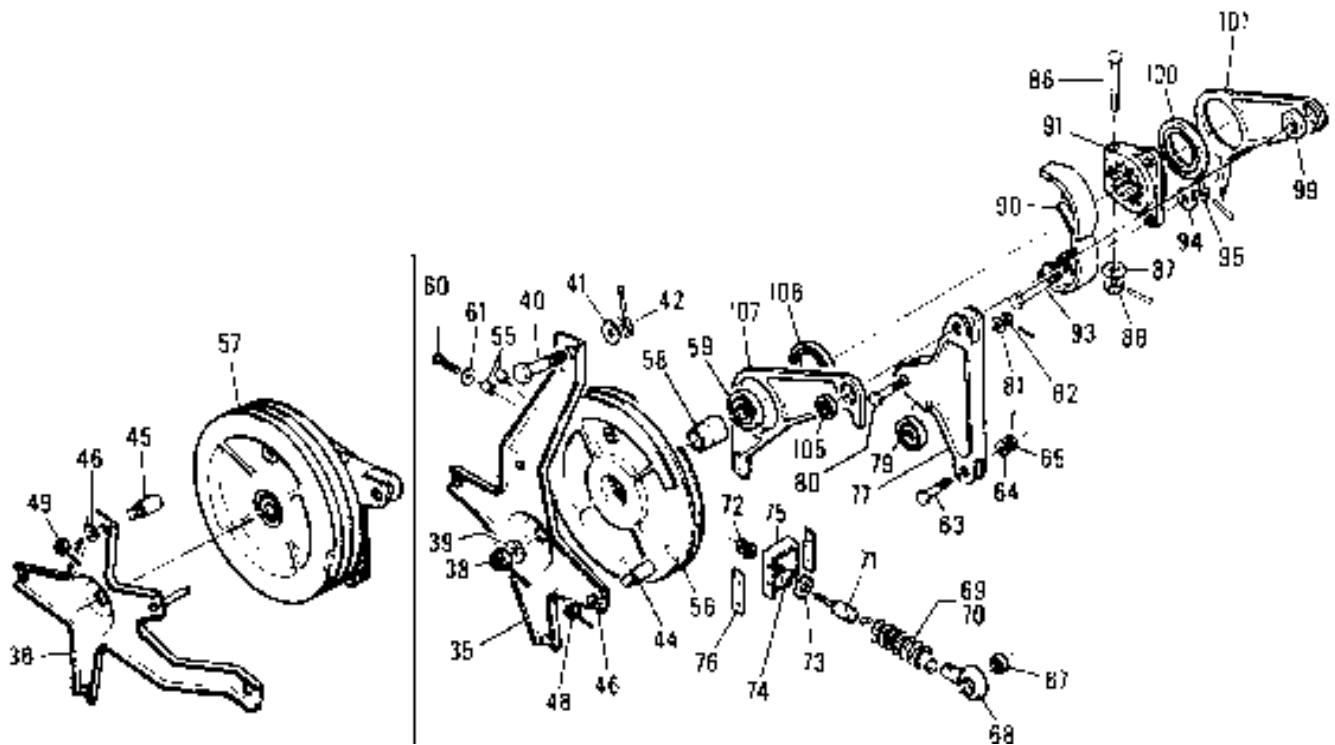


Figure 1

For Transport Canada Alert Information, Contact

TCCA, Steve Dudka, Continuing Airworthiness, Ottawa, phone: (613) 952-4361; fax: (613) 996-9178; email: dudkas@tc.gc.ca

For Further Information Contact

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